## Claims

1. A compound of formula (I) or a pharmaceutically acceptable salt thereof:

$$(R^{2})_{m} \xrightarrow{N} (CH_{2})_{p}$$

$$(R^{3})_{n} \xrightarrow{N} R^{4}$$

$$(I)$$

wherein:

 $R^1$  represents -C<sub>1-6</sub> alkyl substituted by one or more (e.g. 1, 2 or 3) halogen or cyano groups, -C<sub>0-4</sub> alkyl-C<sub>3-8</sub>cycloalkyl, -C<sub>2-4</sub> alkoxy-C<sub>1-4</sub> alkyl, -C<sub>1-4</sub> alkyl-aryl, -C<sub>1-4</sub> alkyl-

heteroaryl or -C<sub>0-4</sub> alkyl-heterocyclyl; wherein said cycloalkyl, aryl, heteroaryl or heterocyclyl groups of R<sup>1</sup> may be optionally substituted by one or more (e.g. 1, 2 or 3) halogen, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, cyano, amino

R<sup>2</sup> represents hydrogen or C<sub>1-6</sub> alkyl;

or trifluoromethyl groups;

m represents an integer from 1 to 4, such that when m is an integer greater than 1, two R<sup>2</sup> groups may instead be linked to form a CH<sub>2</sub>, (CH<sub>2</sub>)<sub>2</sub> or (CH<sub>2</sub>)<sub>3</sub> group;

 $R^3$ ,  $R^4$  and  $R^5$  independently represent hydrogen, halogen, cyano, -CF<sub>3</sub>, -CF<sub>3</sub>O, C<sub>1-8</sub> alkyl, C<sub>1-8</sub> alkoxy, C<sub>1-8</sub> alkanoyl or a group -CONR<sup>6</sup>R<sup>7</sup>;

R<sup>6</sup> and R<sup>7</sup> independently represent hydrogen or C<sub>1-6</sub> alkyl or R<sup>6</sup> and R<sup>7</sup> together with the nitrogen to which they are attached may form a nitrogen containing heterocyclyl or heteroaryl group;

n represents an integer from 1 to 3;

p represents 1 or 2;

A represents an —aryl, -heteroaryl, -aryl-aryl, -aryl-heteroaryl, -heteroaryl or — heteroaryl-heteroaryl group;

wherein said aryl and heteroaryl groups of A may be optionally substituted by one or more (e.g. 1, 2 or 3) substituents which may be the same or different, and which are selected from the group consisting of halogen, hydroxy, cyano, nitro, trifluoromethyl, trifluoromethoxy, C<sub>1-8</sub> alkyl, trifluoromethanesulfonyloxy, pentafluoroethyl, C<sub>1-8</sub> alkoxy,

30 arylC<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkylthio, C<sub>1-6</sub> alkoxyC<sub>1-6</sub> alkyl, C<sub>3-7</sub> cycloalkylC<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkanoyl, C<sub>1-6</sub> alkoxycarbonyl, C<sub>1-6</sub> alkylsulfonyl, C<sub>1-6</sub> alkylsulfonyloxy, C<sub>1-6</sub> alkylsulfonylC<sub>1-6</sub> alkyl, arylsulfonyl, arylsulfonyloxy, arylsulfonylC<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkylsulfonamido, C<sub>1-6</sub> alkylamido, C<sub>1-6</sub> alkylsulfonamidoC<sub>1-6</sub> alkyl, arylsulfonamidoC<sub>1-6</sub> alkyl, arylsulfonamidoC<sub>1-6</sub> alkyl, arylsulfonamidoC<sub>1-6</sub>

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alkyl, aroyl, aroylC<sub>1-6</sub> alkyl, arylC<sub>1-6</sub> alkanoyl, or a group CONR<sup>8</sup>R<sup>9</sup> or SO<sub>2</sub>NR<sup>8</sup>R<sup>9</sup>, wherein R<sup>8</sup> and R<sup>9</sup> independently represent hydrogen or C<sub>1-6</sub> alkyl or R<sup>8</sup> and R<sup>9</sup> together with the nitrogen atom to which they are attached may form a nitrogen containing heterocyclyl or heteroaryl group;

5 or solvates thereof.

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- 2. A compound of formula (I) as defined in claim 1 which is:
- 8-(4-(4-Fluorobenzyl)-piperazin-1-yl)-3-phenylsulfonylquinoline;
- 8-(4-Cyclopropylmethyl-piperazin-1-yl)-3-phenylsulfonylquinoline;
- 10 · 8-(4-(Cyclohexyl)-piperazin-1-yl)-3-phenylsulfonylquinoline;
  - 8-(4-Cyclopentyl-piperazin-1-yl)-3-phenylsulfonylquinoline;
  - 8-(4-Cyclobutyl-piperazin-1-yl)-3-phenylsulfonylquinoline;
  - 8-(4-Cyclopropyl-piperazin-1-yl)-3-phenylsulfonylquinoline;
  - 8-(4-(2-methoxyethyl)-piperazin-1-yl)-3-phenylsulfonylquinoline;
- 8-(4-(2,2,2-Trifluoroethyl)-piperazin-1-yl)-3-(4-fluoro)-phenylsulfonylquinoline; or a pharmaceutically acceptable salt thereof.
  - 3. A pharmaceutical composition which comprises a compound as defined in claim 1 or claim 2 and a pharmaceutically acceptable carrier or excipient.
  - 4. A compound as defined in claim 1 or claim 2 for use in therapy.
  - 5. A compound as defined in claim 1 or claim 2 for use in the treatment of depression, anxiety, Alzheimer's disease, age related cognitive decline, ADHD, obesity, mild cognitive impairment, schizophrenia, cognitive deficits in schizophrenia and stroke.
  - 6. The use of a compound of formula (I) as defined in claim 1 or claim 2 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment or prophylaxis of depression, anxiety, Alzheimer's disease, age related cognitive decline, ADHD, obesity, mild cognitive impairment, schizophrenia, cognitive deficits in schizophrenia and stroke.
  - 7. A pharmaceutical composition comprising a compound of formula (I) as defined in claim 1 or claim 2 for use in the treatment of depression, anxiety, Alzheimer's disease, age related cognitive decline, ADHD, obesity, mild cognitive impairment, schizophrenia, cognitive deficits in schizophrenia and stroke.
- A method of treating depression, anxiety, Alzheimer's disease, age related cognitive decline, ADHD, obesity, mild cognitive impairment, schizophrenia, cognitive deficits in schizophrenia and stroke which comprises administering a safe and therapeutically effective amount to a patient in need thereof of a compound of formula (I) as defined in claim 1 or claim 2 or a pharmaceutically acceptable salt thereof.